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Published every Wednesday, by

THOMAS G. NEWMAN,  
EDITOR AND PROPRIETOR.

## Detecting Glucose Adulterations.

We have received from the Rev. L. L. Langstroth, the following letter concerning the recent discovery of the new phase of the glucose abomination:

OXFORD, O., July 20, 1883.

FRIEND NEWMAN:—I enclose you what I hope will prove a good way of detecting glucose adulterations. I have the promise of some glucosed maple sugar bought in the open market, which will be soon tested. We propose to move all along upon the enemies' lines. I am aware that these exposures must, for a time, to a certain extent, injure the honey trade; but they are necessary, and in the end will help it. If bee-keepers kept silence, where would these frauds stop? The good old AMERICAN BEE JOURNAL has done much honest work in this matter. How long will it take to excite a State or the whole country if a President, or even a Senator or Governor is to be elected, so that vast sums can be raised for election expenses, and yet the people rest almost passive upon the immense frauds of adulterators, who are often destroying health and even life! It is hard to move us in this matter, but the steam of a righteous indignation is making, and its power will be felt.

Please correct the only important error of the press in my last communication. I said, "for we do not believe that this company is a sinner above all others," etc., and the types made me say, "we do believe," etc. Mr. McCord and myself do not wish to make personal attacks upon any one, or to single out any one concern. If any of the many glucose manufacturers feel aggrieved by our exposure, it cannot be helped. Again, I challenge them, or any of their advocates, to name for what legitimate purposes the immense quantities of glucose products are used. I ask them if they dare to say to what uses they are actually put. We wish "the

truth, the whole truth, and nothing but the truth."

L. L. LANGSTROTH.

The letter referred to by Mr. Langstroth, with the method of testing honey, syrups, etc., by Prof. B. F. Marsh, of the Miami University Training School, is as follows:

OXFORD, O., July 18, 1883.

DEAR SIR:—In answer to your request that I should indicate some easy method by means of which impurities in glucose, syrups, etc., could be detected, I submit the following.

The impurities most common in manufactured glucose are calcic sulphate, known as sulphate of lime, and sulphuric acid. Calcic sulphate is insoluble in alcohol. If, therefore, a drop of glucose containing any of the above salt be thoroughly mixed by shaking in a glass vessel with four or five tablespoonsfuls of strong alcohol, a white precipitate of calcic sulphate will appear and make the solution milky. The above test is generally all that is necessary to detect the presence of the sulphate of lime. It may be necessary, sometimes, to add a drop or two of sulphuric acid to the solution before the precipitate will appear.

For the detection of sulphuric acid, a drop or two of the suspected glucose is to be placed in a glass vessel and dissolved in two or three tablespoonsfuls of water. Add a few drops of chloride of barium to the solution, when, if sulphuric acid is present in considerable quantity, a white precipitate will appear and make the solution milky. This test will generally be all that is necessary to indicate the presence of sulphuric acid in glucose. When the acid is present only in minute quantities, it will be necessary to add to the solution of glucose and water, a drop or two of dilute chlorhydric or muriatic acid before adding the chloride of barium. In making the tests, rain water should be used. It is hardly necessary for me to add that pure honey contains no lime or sulphuric acid. There is, however, in all pure honey, a slight trace of formic acid which is secreted by the bee; but this acid will not interfere with the tests which are indicated above.

With great respect, I am,

Yours Truly, B. F. MARSH.

Rev. L. L. LANGSTROTH, Oxford, O.

It will be remembered that the glucose manufacturers wrote to Mr.

McCord that "they feed it [glucose] very largely in California, and make money out of it." Mr. Wm. Muth-Rasmussen has sent us the following very emphatic denial of the accusation:

MR. EDITOR:—I have just read Mr. Langstroth's article with your comments on page 341, AMERICAN BEE JOURNAL.

Allow me to say, that during my 14 years' experience in the bee business in California, I have never seen glucose, nor have I among my large number of bee-keeping acquaintances found any who ever had. I know of bee-keepers, who in seasons of drouth bought honey in San Francisco to feed to their bees to save them from starvation. They paid 7 cents and freight for honey which they had sold the previous year for 5 cents. Others bought grapes at the vineyards and hauled load after load to the mountain apiaries to save the bees. I never heard of grape sugar being used for that purpose, though it is not impossible. But the assertion, that "they feed it (glucose) very largely in California, and make money out of it," I shall not hesitate to pronounce in the meaning it is intended to convey, as an *unmitigated lie*.

I doubt that glucose or grape sugar either can be found in this State outside of San Francisco. I believe it is used there by packing firms, as it is but a short time since I saw in one of the stores here a small can of honey which had been there for 6 years, and was still liquid. The "honey" was rather dark, of inferior flavor, and thinner than good honey ought to be, still it was labeled "Orange Blossom Honey," "Warranted Pure." Two bare-faced lies on each can. Every one familiar with southern California knows that bees never get orange-blossom honey to amount to anything. The orchards are too far from the apiaries, and the orange tree blooms in the winter and early spring, when bees never fly far in search of food.

The price of honey in California is governed by the price in the eastern States, deducting freight, commission and other incidental expenses. Any one can, therefore, by looking at the quotations in the bee papers see that a man is not liable to grow rich by the bee business here. You cannot, Mr. Editor, more than I regret that another drawback should be added to the often precarious living of the

California bee-keeper, by the false assertions of this "Grape Sugar Co."

I enclose a clipping from the *Pacific Rural Press*, March 24, 1883, by which you will see that a new sweetening compound has been invented, and is going to be used to adulterate glucose with. Can you, or any of our scientific bee-keepers, tell us anything further about this "benzoic sulphide?"

WM. MUTH-RASMUSSEN.

Independence, Cal., July 19, 1883.

The following is the new compound for adulterating glucose, mentioned by Mr. Muth-Rasmussen:

**A NEW SWEET COMPOUND.**—C. Fahlberg, in a paper read before the Franklin Institute, Jan. 17, furnishes some interesting particulars in relation to his discovery of a certain sweet compound in the hydrocarbon of the coal tar group. He describes the sweetness as being very intense. As soon as he made the discovery, he proceeded at once to determine whether it was poisonous to take it in larger quantities or not. At first a cat and then a dog were subjected to experiment, but they remaining alive and apparently not in the slightest degree affected by it, the discoverer decided to take several grammes of it himself. The result was not the slightest inconvenience experienced from it. A chemical test of the urine, made the next morning, showed that almost the entire quantity taken could be thus recovered.

The compound obtained, and which contained the sweet principle, forms salts with any carbonate of the alkalis, alkaline, earths or metals and all of which taste sweet. It is, however, not an acid, but belongs to a class of bodies to which the name "Sulphines" has been given; the compound in question being benzoic sulphide. It is very readily soluble in alcohol, more so than in cold water, in which it only dissolves readily when it is hot. The discoverer says: "I am making the attempt now to prepare it in larger quantities, and by cheaper methods, and have no doubt that it will find extensive use in medicine and for technical purposes. One experiment made was to sweeten glucose, which, as you all know, tastes only faintly sweet, and the result was a complete success. As soon as I shall have found the method by which to prepare it on a manufacturing scale, I shall come before you again, and as I trust and hope, with larger samples than now, ready to give answer to all questions in regard to its price, application, etc."

This "benzoic sulphide" is new to us, and, if its career is to be anything like its twin-fraud—glucose—it were better if it should be consigned to eternal oblivion.

Do not let your numbers of the BEE JOURNAL for 1883 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

### Bee and Honey Show at Toledo, O.

The Tri-State Fair (Ohio, Michigan and Indiana) will be held at Toledo, O., Sept. 10 to 15, 1883. The following is the list of premiums in the Apiary Department, of which Dr. A. B. Mason, of Wagon Works, O., is the superintendent:

	1st. Prem.	2d. Prem.
Display comb honey in most marketable shape, product of one apiary in 1883.....	\$10	\$5
Display extracted honey in most marketable shape, product of one apiary in 1883.....	10	5
Display extracted honey in most marketable shape, by a lady, product of her own apiary in 1883.....	5	3
Display comb honey in most marketable shape, by a lady, product of her own apiary in 1883.....	5	3
Comb honey in most marketable shape, not less than 20 lbs., quality to govern.....	4	2
Extracted honey in most marketable shape, not less than 20 lbs., quality to govern.....	4	2
Crate or case comb honey, not less than 20 lbs., in best shape for shipping and retailing.....	4	2
Colony bees.....	5	3
" Italian bees.....	5	3
" Syrian bees.....	5	3
Colonies of bees must be the progeny of one queen, and exhibited in such shape as to be readily seen on two sides. Purity of race, docility, size of bees, and numerical strength to be considered.		
Display of queens, put up in such shape as to be readily seen by visitors; blacks not to compete.....	3	2
Greatest variety of queens put up as in display of queens.....	3	2
Queens and colonies cannot compete for more than one premium.		
Bee hive for all purposes in the apiary, may be represented by a model not less than half size.....	3	2
Bee hive, glass.....	2	1
Wax extractor.....	2	1
Honey extractor.....	2	1
Foundation mill.....	5	3
Foundation press.....	5	3
Beeswax, not less than 10 lbs.....	2	1
Comb foundation for brood-chamber, not less than 5 lbs.....	2	1
Comb foundation for surplus honey, not less than 3 lbs.....	2	1
Comb foundation machine making the best foundation for brood-chamber on the grounds.....	8	4
One piece sections, not less than 50.....	1	50c
Dovetailed sections, not less than 50.....	1	50c
Packages with labels for retailing extracted honey.....	1	50c
Bee smoker.....	1	50c

Honey knife.....	1	50c
Package for shipping extracted honey in bulk....	1	50c
Machine for making holes in frames for wiring.....	2	1
Machine for wiring frames.....	2	1
Display apiarian supplies.....	3	1
Quinces preserved with honey.....	2	1
Peaches preserved with honey.....	2	1
Apples preserved with honey.....	2	1
Pears preserved with honey.....	2	1
Largest and best collection of bee literature.....	2	1
Largest and best display of honey bearing plants, properly named and labeled....	10	5
Queen cage, such as is admitted to the mails by the postal laws.....	1	0
Honey vinegar, not less than one gallon.....	2	1
Honey cake, with recipe for making.....	4	2

**Bee and Honey Show.**—The twenty-third St. Louis Fair opens Monday, Oct. 1, and closes Saturday, Oct. 6, 1883, and offers premiums, \$50,000. The following are the premiums for Bees and Honey:

Best display of Italian bees	\$20
" display of black native bees.....	20
Best imported queen.....	10
" display of comb honey 25 lbs.....	Dip. and 10 L.S. Med.
Best crate of honey in comb	Dip.
" bee hive for all purposes.....	Dip.
" honey extractor.....	Dip.
" wax extractor.....	Dip.
" bee smoker.....	Dip.
" honey knife.....	Dip.
" bee veil or face protector.....	Dip.
Best display of apiarian implements.....	1st Dip. & \$25 2d L. S. Med.

The secretary writes us as follows: "We make no charge for entry or space, and will allow the sale of products, provided a neat display is made, and stock is replenished, during the entire week. We contemplate allotting a building exclusively to this department."

Mr. J. F. Tearman, of Lincoln, Ill., has sent us a copy of the Premium List of the Fair to be held at Lincoln, Ill., on Aug. 27 to 31. The following are premiums for "bees and honey"—just three; no more and no less—the whole amount of premiums being but just \$18. Let us hope that heretofore they have offered none, and that this is their first effort:

	1st.	2d.
Bee hive containing colony of bees.....	\$5 00	\$2 50
Display of apiarian supplies.....	5 00	2 50
Five pounds of honey in comb.....	2 00	1 00

**Bee and Honey Exhibition.**

There will be held, at the Southern Exposition, August 28 to September 1, under the direction of the Agricultural Committee, an exhibition of bees and honey, when the following premiums will be awarded:

1. For best exhibit of Italian bees in observatory hive	
First.....	\$25 00
Second.....	15 00
2. For best 50 to 100 pounds of comb honey produced in Kentucky in best shape for retail trade or for family use	
First.....	20 00
Second.....	10 00
3. For 50 to 100 pounds of extracted honey produced in Kentucky in best shape for retail trade or for family use	
First.....	20 00
Second.....	10 00

NOTE.—The premiums No. 2 and No. 3 above are offered by the State of Kentucky through Hon. Chas. E. Bowman, Commissioner of Agriculture, and are confined to the products of Kentucky.

**RULES OF THE EXHIBITION.**

1. The exhibition will be in charge of the Superintendent of the Agricultural department.
2. Bees in observatory hives must be so confined that they shall not have exit in the Exposition building.
3. Table room for the exhibits will be provided by the Superintendent.
4. Articles for exhibition sent by express must be directed to the Southern Exposition, marked "Bee Exhibition," and charges must be prepaid.
5. Exhibitors will be admitted free on August 28 and 29.
6. All exhibits must be entered and placed upon the tables by 1 o'clock p. m., August 28, at which time judges will award the premiums.
7. Judges will be appointed by the Agricultural Committee.
8. The premiums will be paid in cash.

**The National Convention.**

The National Bee-Keepers' Association, will hold its Annual Convention in the City Hall and Council Chamber in the city of Toronto, on Tuesday, Wednesday and Thursday, the 18th, 19th and 20th days of September, during the second week of Canada's Great Fair. All the railroads in Canada will issue tickets during this week, good to return, up to Saturday night 22d, at single fare for the round trip. Special excursion rates will be arranged from various parts of the United States, of which due notice will be given. Those who intend being present may be kept posted on the latest excursion rates, etc., by addressing me, and also that I may arrange hotel accommodation. Private lodgings will, if possible, be secured for those who desire it, and every effort will be made to make everybody comfortable. A grand meeting is anticipated.

D. A. JONES, President.

Articles for publication must be written on a separate piece of paper from items of business.

**The Honey Flow.**

Mrs. L. Harrison, in the *Prairie Farmer*, makes this statement of the case:

The flow of nectar from white clover still continues, and judging from recent rains, it appears as though there would be no interim between its bloom and fall flowers. Some bee-keepers of this State report "honey dripping from their garments," and this is literally true of those who extract. The flow of honey, this season, has not been continuous, but off and on, resulting in the rearing of multitudes of bees. When swarming has been controlled to the extent of keeping all hives full to overflowing with bees, satisfactory results in honey will be obtained.

**Dio Lewis' Monthly** is the title of a new serial, the first number of which is on our desk. It is a handsome magazine printed in clear type, and is devoted to health and hygiene. It is published by Clark Bros., 68 Bible House, New York, at \$2.50 a year. The editor remarks as follows:

It is conceded that the cloud overhanging this wonderful land is the doubtful health of its people. With good digestion and good nerves we can more than realize the world's brightest hopes. The aim of this magazine is to popularize sanitary science. We shall strive to make the subject of the health of our bodies as simple and interesting as a story.

The pamphlet, "Honey, as Food and Medicine," is in such demand, that we find it necessary to print them in still larger quantities, and can, therefore, still further reduce the price, as noted on page 387. Let them be scattered like "autumn leaves," and the result, we feel sure, will fully reward honey-producers for both the labor and the small expense.

**St. Joseph, Mo., Honey Show.**—We notice by the *St. Joseph Gazette* that Mr. D. G. Parker is again appointed superintendent of the apiarian department of the St. Joseph Exposition. We hope it will be a grand success.

Last spring Mr. D. C. Talbot described his "Comb Foundation Fastener" in the *BEE JOURNAL*, and afterwards advertised it for sale. Now we have two complaints from parties that have sent for, but, so far, have not received it. We have written him twice about the matter, and getting no reply, we fear there is something wrong, and now publicly ask for an explanation.

**Postage on Queens to Canada.**—On any package of merchandise sent to Canada, of 8 ounces or less, the postage is 10 cents. Queens, therefore, cannot be sent for less than 10 cents each. Canadians ordering queens from the United States, should add 10 cents for each queen, if they are to be sent by mail, for that extra 10 cents will usually eat up all the profits on queen bees, if they are reared as they should be.

The new two cent rate of postage for letters goes into effect on October 1. Three cent postage stamps will then be but little used. For all fractions of a dollar sent to us hereafter we should prefer either one-cent, or else five or ten-cent postage stamps. Do not send coins in any letter.

**Honey and Beeswax Market.**

OFFICE OF AMERICAN BEE JOURNAL. }  
Monday, 10 a. m., July 30, 1883. }

The following are the latest quotations for honey and beeswax received up to this hour:

**CINCINNATI.**

**HONEY.**—Extracted honey commences to come in freely, and a large crop is reported from all quarters. The demand is very good, and keeps pace with the arrivals. For choice extracted honey I pay 7¢10c; the latter price for choice clover. I have received several nice lots of comb honey, for which we paid 15¢16c on arrival.

**BEESWAX.**—Arrivals of beeswax are plentiful. We pay 32c. for a good article on arrival.

CHAS. F. MUTH.

**NEW YORK.**

**HONEY.**—Best clover in 1-lb. sections (no glass) 20¢21c; in 2-lb. sections (glassed) 18¢20c. Fair quality, 1 and 2-lb. sections, 16¢17c. Extracted, white, in small barrels, 10¢11c; buckwheat, 8¢8½c. **BEESWAX.**—Is more plentiful. Prime yellow sells at 36½c.

H. K. & F. B. THURBER & CO.

**CHICAGO.**

**HONEY.**—New crop of comb honey is being offered, and some sales of it have been made at 16¢18c in 1 and 1½ frames. The receipts of extracted are liberal, and there is a good deal of complaint about unripe honey; consumers holding off. Market, 9¢10c for white. Very little dark left, and some inquiry for it.

**BEESWAX.**—30¢35c.

R. A. BURNETT, 161 South Water St.

**SAN FRANCISCO.**

**HONEY.**—New extracted is arriving freely—selling for 7 and 8 cts. New comb coming forward slowly; extra white, 10c.

**BEESWAX.**—No beeswax in the market.

STEARNS & SMITH, 423 Front Street.

**ST. LOUIS.**

**HONEY.**—Considerable new arriving, and selling in lots at 7¼¢7½c for extracted in cans; 14¢15c for comb. Old and all poorer offerings neglected and nominal.

**BEESWAX.**—Easy, but sold mainly at 29¢30c.

W. T. ANDERSON & CO., 104 N. 3d Street.

**CLEVELAND.**

**HONEY.**—There is a very good demand for new white honey at 18¢20c. for 1 lb. sections; 2 lb. new 17¢18c; old, 15¢16c. No extracted has been received, and none seems wanted in our market.

**BEESWAX.**—32¢35c.

A. C. KENDEL, 115 Ontario Street.

**BOSTON.**

**HONEY.**—Our market is fairly active. We quote: ¼ lb. sections at 30¢; 1 lb. sections, 22¢25c; 2 lb. sections, 20¢22c. Extracted, 10c. per lb. Good lots of extracted are wanted in kegs or barrels.

**BEESWAX.**—Our supply is gone; we have none to quote.

CROCKER & BLAKE, 57 Chatham Street.

## CORRESPONDENCE

For the American Bee Journal.

### That "Long Idea" Hive.

G. M. DOOLITTLE.

On page 223, A. W. R. asks why I do not adopt and practice the method used in getting the 566 pounds of extracted honey spoken of on page 115. Ten or more years ago D. L. Adair, of Kentucky, was quite a prominent beekeeper and writer for the bee papers. He used and advocated a long hive to be used on the principle of spreading the frames out horizontally instead of tiering one hive above the other, claiming that, thereby, a colony of bees could be kept in a normal condition, and while in said condition no swarming would be the result. This hive he termed the "long idea" hive. Being always ready to test all the "new ideas," I made two hives four feet long, during the winter of 1873, but did not put them in use until the summer of 1877. One of these I worked for extracted honey, as given on page 115, and the other for comb honey, on Mr. Adair's plan.

The one worked for comb honey swarmed, and after repeated trials to keep them at work in the 4-foot hive, I let them have their own way when they had swarmed for the fifth time, and hived them in an empty hive.

The one worked for extracted honey did splendidly, but another worked on the "tiering up" plan did nearly as well, and by practical knowledge I learned that I could work a two or three story hive much more easily than I could this long one. To take the frames out, the person's back must be bent just enough to make it the hardest kind of work, and the bees which were shaken off the combs would crawl all over the sides and top of the hive in such numbers as to make it almost impossible to close it again. With the two story hive the bees could be shaken on top of the frames in the lower hive, when they would crowd below until the hive was closed, and the operator could stand erect while at work at the hive. But the worst thing about it was that I lost both colonies during the next winter, after fixing them in good shape for winter, as I considered. I have tried the hives since with no better success, so have torn them to pieces and made others of them.

A. W. R. further wants to know "what became of the 70,000 workers in winter." As the honey season drew to a close, or about the first of August, the queen ceased to lay in all but about six of the central frames, so that by the first of November the hive contained no more bees than others having only nine frames during the season. The worker bee lives but about 45 days during the summer months, hence it comes to pass, as soon as the queen ceases her extra prolificness, that the workers

rapidly diminish, till but an ordinary colony exists for winter. He that over-rides all things made the honey bees so that as summer approaches their instinct leads them to usher a host of bees into existence to gather the honey about to be secreted, and as this passes by, the same instinct leads them to prepare for winter, by decreasing their numbers. In this, as well as in many other things, we see how perfect was the work of the Creator.

Borodino, N. Y.

Michigan Farmer.

### Selecting Location Before Swarming.

PROF. A. J. COOK.

I send you this interesting letter of Mr. F. E. Delano's, one of our graduates, and a farmer at Oxford, Mich. A case almost identical is reported from England. This seems to prove that scouts are sent out before swarming to pre-empt the future home, and that clustering just after the swarm issues, is not to give time to look up a home, but more probably to give the queen, which has not tried her wings for months—probably years—a brief rest after the short flight, from hive to cluster, before the longer one is commenced.

OXFORD, June 24, 1883.

To Prof. A. J. Cook.

As you are now interested in imparting what is known about the "little busy bee" to those who are still nervous about shaking hands with them, and still more so about having them tenants of the same house. I will tell you of an interesting occurrence that has taken place here, and in which a swarm of bees are especially interested. We are engaged in rebuilding a part of our house; the upright has not been torn down, and on the side where we are putting up the new part the joists run through the wall. There happened to be some holes next to the ends of two or three. Friday afternoon it was very warm; for a long time I had noticed that there were bees around the house, and had made some casual remarks concerning them, but paid no attention otherwise to their continual hum. Finally we looked around, and found that to all appearances a swarm of bees had gone into the house under the chamber floor. As a swarm of bees make considerable noise when they fly, and as we had heard no unusual or increased amount of humming, we concluded that they must have come when we were at dinner. Again, we could hardly credit that conclusion, for it was half-past three before we had heard a bee at all. That night all we could do was to make conjectures concerning their arrival. The mystery was satisfactorily explained about 9 o'clock Saturday morning. About half-past eight we noticed that there was not a bee around, so did not know but that they had left. Well, they had, but not for good, for about nine the swarm really came, and this time they made noise enough. It was a

big swarm, too. Now, for the conclusion: The bees that came Friday were either a scouting party sent in advance, or else they came to clean out and make ready, which, I do not know; but think probably the place had been selected before, and that this regiment had been sent on to make ready for the swarm, for they were very busy until night. Then Saturday morning the regiment went back and piloted the swarm to the new found home.

Whether the swarm came direct here from the hive or not, I do not know. There are bees kept three-quarters of a mile south of here. I shall go and see if a swarm left there Saturday morning.

This is positive proof in this case, and I suppose it is so in all, or most at least, that the place is selected before the swarm go to it. I have been minute in my description because the circumstance was interesting, and I never remember of reading or hearing anything positive in regard to the matter before.

FRED E. DELANO.

For the American Bee Journal.

### The Traffic in Queens.

JAMES HEDDON.

Some 20 years ago a new race of bees was introduced to American apiarists. This race was called Italian. They were plainly and distinctly marked physically, and possessed also distinct traits of character. Some of their characteristics were, when compared with our old-time tried Germans, found to be superior, and some inferior. The common voice of the majority of apiarists pronounced them best, all points considered. Then came a demand for these bees. It was found that they readily lived and mingled with our Germans, and that to put an Italian queen in the place of a German queen, would change the whole colony in a few weeks. Then there came a demand for queens.

The rearing of queens to fill that demand was the next effect. The breeder began to select colonies of pure Italians to breed from, and as he had more than one pure colony, he began to look about for some way to decide which colony he should use. There is not on record a case where a cent was thrown up, "heads or tails," to settle on the colony to select eggs or cells from. Quicker than a flash the master's good sense said, "this one gathers the most honey, and behaves the best, and, of course, I shall use it." Then and there a new system of breeding was born. "Spontaneous generation." Breeding for qualities began, never to cease as long as man and bees remain in partnership in the production of honey. Years rolled on, and no one thought of improving any race of bees except the Italian.

Quite often controversies came up as to which race was, "taken all in all," the best. Then the good and bad qualities of both were shown

up. When looking at this picture, thoughtful bee-keepers carefully weighed the good and bad points, and struck a balance; some said "the Germans are the best," more said "the Italians are best." Acquisitive honey-producers said, "Why can't we combine the good qualities of both races?" Determined breeders said, "We can and we will," and now, queens bred for qualities, and not for the purity of any race, are pouring through the mails like streams through a desert.

At last, in spite of all mistaken and interested opposition, the time has come when the leading honey-producers of this country can use and sell the same stock—the bees of their choice. I have private means of accurately estimating the popular public sentiment of to-day regarding this subject; also its growth during the last few years. I predict a glorious future for the development of "*Apis-Americana*." At last, in the traffic of queens, the breeder finds honesty and interest together.

Before I close I wish to say a few words regarding what kind of queens are best for purchasers to buy. If one is so well satisfied that he has his eye on the strain of bees he is going to possess, I know of no way better than to buy untested queens and put one at the head of each colony. I did this with 40 colonies in 1871, and paid \$2 each; but if, on the other hand, the purchaser wishes to test the strain before changing to it, or for any reason sees fit to rear his own queens, he should by all means order one, or as many more as he can afford, of tested queens. They will prove much the cheapest in the end, as every breeder very well knows. The idea of purchasing one untested queen to test a strain by, is preposterous in itself. I am of the opinion that the more tested and less untested queens are purchased, the faster we shall march toward that coming bee. No man should ever breed from an untested colony.

Dowagiac, Mich., July 16, 1883.

For the American Bee Journal.

### Combs Built in Wired Frames.

T. A. HOUGAS.

In regard to the impracticability of wiring frames except for foundation, is fully settled in my mind. I should not do so, as I consider it but a waste of time and money. This spring I experimented on this in two ways.

1. I placed wired frames, and frames with full sheets of foundation alternately.

2. With nothing but wired frames in the hive.

In the former they built the combs from top to bottom of the frames in strips, not averaging over  $1\frac{1}{2}$  inches wide. The wire was precisely in the centre of the comb in each and every case. They did not seem to want to unite these combs (there was two or three of these combs in each frame), so as to make the frame solid, but would leave large openings in them.

In the latter they seemed to be bewildered. Some combs they built properly, while with others the wires seemed to be in the way. In one case they built exactly at right angles with the frames. In one case a line of drone cells was built on either side the wire the full length of the comb.

In another instance I wired a frame and filled it with foundation, just half way down from the top-bar. They drew out the half sheet and a full sheet on the outside of a division-board before they completed the half-filled frame.

After thus experimenting, I have concluded that it would be utterly useless, if not more than useless to wire a frame unless you fill it with foundation. I agree with Mr. Heddon, that it is impractical.

Henderson, Iowa, July 16, 1883.

For the American Bee Journal.

### Experiences of a Novice.

BY A NOVICE.

This article is headed thus, so that old bee-keepers may skip over it. It is written by a novice for novices.

I bought a colony of bees late in the spring; a strong colony. The hive was called a Langstroth, or I should not have bought the bees. Not liking the old unpainted hive, I sold it to the man who sold me the bees. After a fortnight, according to agreement, I attempted to transfer the bees to a new Langstroth hive, when I found the bar of the frames half an inch too long to set in my hive. I, however, succeeded by putting one end of the bar in its proper place, and allowing the other end to rest on the top of the brood-chamber.

The combs were very thick and irregular, and were half full of honey. After a while the hive became too full of bees, and not being able to secure an experienced hand to divide them, I placed a new hive about 8 feet from the full colony, and then exchanged their places. Took two thick-combed frames of bees from the full colony and put them into the new with a frame of foundation on each side, and a division-board. I could not find the old queen, so I chose a frame with a queen-cell, and left in the other hive a queen-cell.

In a few weeks the old colony seemed again to be in need of being divided. I had replaced foundation frames where I had taken the frames of bees. These had cells, and were covered with bees. This time I secured the services of an experienced bee-keeper. He took the full hive about  $2\frac{1}{2}$  rods away, and put the new hive where the old one had stood, and put with it two frames of bees, and a frame of foundation on each side; but he could find no queen. The next day not more than 200 bees remained in the new hive, the rest returned. I think, to the old one, so now I propose to put the two new colonies together. When the last division was made, I found the honey all gone, and commenced feeding them, near the entrance, with syrup from granulated

sugar, but the flies took half of it.

On inquiry I found a better way was to soak a slice of corn bread in the syrup and put it on the frames under the cloth and cap. Yesterday, I tried the plan, and with such benevolent intentions I thought I need not take the veil nor smoker, but I carelessly irritated the bees, and three of them felt called upon to teach me to be more gentle. I had, before this time, put into my vest pocket a vial of carbonic ammonia, and was now anxious to try its virtues. I did so, but this morning I have a very large fat hand. I am now ready to try another prescription. The veil and smoker soon set things all right.

By the way, I had prepared 40 sheets of paper with nitre, and rolled up with one sheet some cotton rags and wood, put it into the smoker and lit it with a match, but being in a hurry my match fell down upon the rest of the paper, which I threw upon the ground to stamp out the fire, but did not succeed. I have since prepared more, and thank Mr. Higbee for his information in the Weekly BEE JOURNAL. These experiments have taught me several things:

1. Always treat the honey bee gently and respectfully.
2. Always use a smoker and veil when handling bees.
3. Prepare the smoker as recommended by D. Higbee.
4. Never depend on powdered carbonic ammonia.

Steele City.

For the American Bee Journal.

### Bees in Washington Territory.

C. THEILMANN.

I have just come home a trip from Medical Lake, Washington Territory, the great bathing resort of Spokane county, where hundreds of people have restored their health by the waters of Medical Lake, of which I am one that was cured of many years' biliousness.

Traveling considerably in the Territory, I have only found bees in the vicinity of Walla Walla. They seem to do splendidly, and are gathering a good deal of honey there, but the bee-keepers do not manage them very well. I only saw one (an Iowa man) that had some kind of movable frames in his hives, though very poorly gotten up. All the rest that I saw, had their bees in box hives, and did not know how to get any honey, unless they brimstoned the bees in the fall.

Walla Walla valley seems to be well adopted for bee-keeping, as they hardly ever lose any colonies in winter, for the winters are generally very mild.

I purchased 2 colonies, the only two the man had which would not offer to sting in handling, and transferred them 150 miles North, to the lake above mentioned, and are the first bees that have ever been taken North of Snake river; they are gray-looking bees, different from the rest I saw around Walla Walla, but I saw such bees last year while traveling through Arizona. How those gray bees reached

Walla Walla I cannot ascertain; all I know is that they do not offer to sting, for all that, they have stings as well as other bees. I would like to get some information about the gray Arizona bees, through the BEE JOURNAL, about their habits, etc.

My bees here are doing well. White clover has been better than ever heretofore, and basswood has just commenced to bloom a day or so ago, and promises a large yield.

I have just received a letter from my son, written 10 days after I left Medical Lake, saying that these gentle bees are doing nicely. He is living at the Lake and is attending to them.

Theilmanton, Minn., July 19, 1883.

[Will some one in the Territories please reply to the above? Are they not the same grey bees that are found in the South?—ED.]

For the American Bee Journal.

### Bee Notes from Mississippi.

O. F. BLEDSOE.

My bees are doing well this season, and are profitable in pecuniary returns, though I cannot yet obtain results to compare with those of some Northern bee-keepers. I am, however, encouraged in the business. I am satisfied that in this locality, and almost anywhere in the South, there is each year ample honey flow to make bee-culture profitable. The great problem with me is the best method for controlling the swarming fever.

It is difficult here to keep bees at the point, in strength, at which they will make comb and seal comb honey, and yet not swarm. My plan is to shade, ventilate, remove all drone comb, to provide ample room to cluster and build comb at the sides, confining the brood nest by division boards, and to remove all sections from the top as soon as sealed over. I clip one wing of every queen. If a swarm issues and I do not desire to put it in a new hive, I let it return and remove the queen, or return her to the hive caged. On the seventh day after swarming, I open the hive and cut out all queen cells. Nearly all the brood will by this time be sealed over, but lest the bees will take some of the youngest unsealed larvae and try to make a queen, I select five of the youngest queen cells and put them back directly over the brood nest in the place of a section box, which has been taken out for the purpose. After two days more, I remove all these queen cells and let out the queen, or, if the queen has been taken from them, remove all the cells but one. Under these circumstances, the bees are compelled to stay and go to work, and, if ample room is given, will not often swarm again, especially if they have a young queen from a cell left to them. As fast as new comb is made in the frames at the sides, it is cut out while still white and pure, the honey extracted, and the comb used in section boxes.

I can get much more, and more beautiful comb in this way, than if I

put section boxes at the sides in the brood frames. The bees are quicker to go to work in common frames with good starters or foundation; more bees can get to work, and, the building-clusters being more continuous, they make more rapid progress.

The frame I have adopted is a shortened Langstroth frame, that fits exactly in the Langstroth hive when turned round, and the entrance put in one of the sides; dimensions of the frame,  $13\frac{3}{8} \times 9\frac{1}{4}$ . A broad frame of these dimensions will hold exactly six  $4\frac{1}{4} \times 4\frac{1}{4}$  sections. Nine of these frames in brood nest take  $999\frac{1}{2}$  square inches of comb, the Doolittle standard for brood nest being 1,000 square inches of comb. If those who use Langstroth hives should use these short frames for awhile, they would not insist on a frame  $17\frac{3}{8} \times 9\frac{1}{4}$  as the best for a standard. The Langstroth frame is certainly of the proper depth to obtain the best results in comb honey, but for many reasons it is too long; and, among others that it does not admit of the proper arrangements for the side-building of comb, and this is certainly the correct principle in the production of comb honey.

Grenada, Miss., July 24, 1883.

For the American Bee Journal.

### The Honey Crop Not a Large One.

J. L. GRAY.

Please allow me to protest against the almost universal practice of writers in bee papers (especially those who have kept bees only for a short time) of exaggerating the bee business in general, and the present crop of honey in particular. This gives honey dealers the impression that the markets are about to be flooded with the largest crop of honey ever known. The bee papers are full of glowing accounts of the wonderful yields in certain parts of the country, while those that are getting light yields, or none at all, do not report; the dealers only seeing one side of the report, take it for granted that they can safely cut the prices, and are not slow to do so.

The crop of honey in this part of the country is away below an average, so far this season; some of the most successful apiarists not having secured any surplus as yet, and clover and basswood are nearly over.

Mr. James Heddon has, for years, manfully fought against this and kindred wrongs; he has stood unaided, and almost alone, against the practice of many who coax, yes, almost pull everybody into a business already crowded; he has been called selfish, because after he had been to a great expense, and had devoted the best years of his life to make a success of what these same outsiders had laughed at. He protested against trying to persuade everybody—invalids, cripples, and lazy good-for-nothings to step in and overstock a pasture he has by all means the best right to.

I know how this works, for I have had a practical illustration with one

of the kind who thinks that the more swarms he gets the more successful he is. It is not selfish for a person to look first to his own interests, and secondly to mankind in general.

What would we think of a doctor, lawyer or merchant who would continually try to convince others that his was the best paying business, and want everybody to open a store or office and take part of his trade or practice from him. I would think him "short of wit," but I suppose others might say he was selfish, if he did not do this.

Lee Centre, Ill., July 25, 1883.

[We give place to the above *at once*, so that the "protest" may have its full weight. It is, of course, useless to think of deceiving any shrewd business men, either by "talking up" or "talking down" the size of the honey crop. The quantity, be it either large or small, offered for sale, decides the matter and makes the "exact truth" known.

The BEE JOURNAL has, on every every occasion, discouraged the idea that the business of keeping bees was fit for the lazy, invalids, etc., and does not believe in *tempting* any one to keep bees—but any *selfish* policy will in the end defeat itself.—ED.]

For the American Bee Journal.

### Bee-Keeping in Canada.

EDWARD MOORE.

Last fall I put 3 hives of bees into a box, packed with sawdust, but not packed as I would like, my means being very limited, and, at the proper time for packing, I was working, and could not attend to the bees. In the spring, when I opened the box, one colony was dead, and the other two very weak in numbers. The first opportunity I had, I united them, and the first flight they had, I saw they had the dysentery badly, but I allowed them a few flights. They were lively and active, and soon overcame that. Later I searched 2 or 3 times for the queen, but could see none; seeing hybrid queens advertised for sale, I thought I could do no better, so I sent for one, and received it all right. Taking the netting off the little hole of the queen's cage, I plugged it up with beeswax, and laid it on the top of the frames; sometime after, on looking, I saw the wax was gone, so was the queen. I closed up the hive. (It was on the 14th of June I received the queen.) As they were so weak in the spring, I expected no swarm this summer, but on July 3, they swarmed, and by appearances would more than fill a gallon measure; so there must have been a queen, for had the queen I put on the frames been received at once, and begun to lay immediately, the earliest hatched could not have been before the 5th; besides the queen was a hybrid. To-day, July 12, I had a second swarm, considerably

smaller than the first, but enough to build up well before the fall.

Soon after warm weather set in, we had, and continue to have, considerable rain, so much so that a great deal of the cultivated land is like a marsh, and we have rain the greater part of the time, both day and night. There is an abundance of clover bloom, but the bees can get out but little, and, I suppose, that if they could, there would be but little nectar to gather, but we must hope for better things before long.

We have had a few warm dry days, and the subjects of this correspondence are as busy as bees. July 12, was warm and cloudy, still not by any means entirely overcast. Toward evening it darkened down, began to thunder, with heavy rain again, and is a critical time yet, I fear, for honey gathering.

On Saturday 14th, I had another small swarm: I think of acting as near as I can up to the instructions of Prof. Cook with respect to rearing a queen or two, to have ready if needed. Barrie, Ont., July 14, 1883.

For the American Bee Journal.

### A Word to Iowa Bee-Keepers.

O. CLUTE.

By invitation of the Executive Committee, I attended the annual winter meeting of the Iowa Agricultural Society, last January, in Des Moines, and gave a lecture on "Modern bee-keeping." The audience was large, and seemed much interested in the subject.

I was requested also to attend a business meeting of the Executive Committee, and to make a statement as to the importance and prospects of the bee-keeping industry, and of the help the Agricultural Society could give in fostering and developing it. I found the committee to be composed of courteous gentlemen, who were quite willing to do anything reasonable. They asked me to make out a list of premiums to be offered at the State Fair, this fall. It seemed unwise for our infant industry to make too large a demand at first, so I made out a modest and yet honorable list, and submitted it. They adopted it at once. I can see now that it is by no means perfect, yet it will do for a beginning. If the parties interested in bee-keeping will come out in force, and make a good exhibit, we can have a better list of premiums another year. The premiums offered for this year are as follows:

#### CLASS NO. 128.

#### Bees, Bee Products and Bee-Keeping Implements.

	1st. Prem.	2d. Prem.
Best bees in observatory hives.....	\$3 00	\$2 00
Best and largest display of different races of bees...	5 00	2 00
Best comb honey, white clover.....	5 00	2 00
Best comb honey, linden...	5 00	2 00
Best comb honey, fall flowers.....	5 00	2 00

Best and largest display of comb honey.....	10 00	5 00
Best extracted honey, white clover.....	5 00	2 00
Best extracted honey, linden	5 00	2 00
Best extracted honey, fall flowers.....	5 00	2 00
Best and largest display of extracted honey.....	10 00	5 00
Best hive for summer.....	2 00	1 00
Best hive for out-door wintering.....	2 00	1 00
Best honey extractor.....	1 00	
Best bee smoker.....	50	
Best and largest display of bee-keeping implements	5 00	2 00
Best comb foundation for brood combs.....	2 00	1 00
Best comb foundation for surplus comb honey.....	2 00	1 00
Best display of honey plants	3 00	2 00

NOTE.—The award of the judge or committee on bee products will be on a scale of 20 points of perfection, as follows: Color 5; quality (taste) 5; neatness of packages 5; and general advantage to purchasers, including facility for handling, 5.

I have examined somewhat carefully the premium lists of many of the State Agricultural Societies, and there is, I think, but one that offers a better list of premiums to bee-keepers. In most cases the premiums are so insignificant as to repel any bee-keeper who respects his calling. The bee-keepers of Iowa should respond to this generous treatment from our Society by coming out to the State Fair in large numbers, and exhibiting their products. Let us show to the State the beauty, the excellence, and the importance of our products.

While this word is addressed especially to the bee-keepers of Iowa, it must not be forgotten that our noble State throws its gates open to all. Competition in all departments is open to the world. All bee-keepers living outside of Iowa will be cordially welcome to the Fair, and their exhibits will be on a par with those from Iowa. It is hoped that many bee-keepers from adjacent States will come and help us.

Iowa is most excellently adapted to the production of honey. Undoubtedly this industry will rapidly develop in importance. If all the newspapers in Iowa will print this article, they will assist in furthering a new business which will soon assume large proportions, and will benefit every section of the State.

Iowa City, Iowa, July 25, 1883.

We have organized a bee-keepers' association at Waco, Texas, known as the "State Central Bee-Keepers' Association. Please give notice in the BEE JOURNAL.

J. W. GUYTON, Sec.  
Waco, Texas, July 21, 1883.

The summer meeting of the Cortland, N. Y., Union Bee-Keeper's Association, will be held at Cortland, N. Y., on Tuesday, Aug. 14, 1883.

M. C. BEAN, Sec.

## What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

### Tiering up the Sections.

Will Mr. James Heddon please answer through the BEE JOURNAL the following questions:

1. What is the cause of bees making drone brood in the sections or boxes above the brood-chamber, on the old colonies, before swarming?

2. Is there any arrangement for putting on tiers of sections, more than one high, so that you can see when the sections are full, without raising up frames?

3. How many tiers high do you think right for a very strong colony?

JAMES SHORTT.

Oak Centre, Wis., July 19, 1883.

ANSWERS.—1. Bees are more desirous of producing drones just before swarming, as they at that time anticipate their immediate use. Drone or store comb has large sized cells, and they are quite apt to build this kind of comb in surplus sections where full pieces of foundation are not used; more especially if there is little drone comb in the brood chamber, which would surely be the case if full sheets of foundation were used there.

2. We use a case of our own peculiar style, which takes one tier of sections. We use this three and sometimes four tiers, or cases, high. To examine the case we remove the cover, and then one case after another, looking into their tops and bottoms. We find this much simpler and easier than any methods, using glass.

3. Answered above.

### Italian Bees Turned Black.

What is the cause of my bees changing from Italian to black? Last April, I bought a colony of Italian bees. About the first of June I began to see a few black bees in the colony. To-day, July 16, you cannot see an Italian bee, or one that looks like one. The colony has not swarmed yet. I keep a small apiary of bees, mostly black; they are doing splendidly. I am more than pleased with the BEE JOURNAL. A. P. CHAPIN.

Fenton, Mich., July 16, 1883.

ANSWER.—In reply to your question, I would say that your queen died in the spring. The colony by some means or other became possessed of another. It would seem as though your new queen would produce hybrid bees containing some yellow bands, provided they had reared her from the one deceased, which you bought. It may be barely possible that a black

queen entered the hive, and became the reigning queen. I can hardly account for so sudden and radical a change, in any other way.

#### Heddon Rack.

I see in the last number of the BEE JOURNAL, page 357, that Mr. W. H. Harmer likes the Heddon section rack, and thinks the broad frames will soon be a thing of the past. What kind of section rack does Mr. Heddon use? Does he use the Langstroth hive? Is Mr. Heddon's rack suitable for both one and two-pound sections? Please answer in the BEE JOURNAL. L. FATZINGER.

Janesville, Wis., July 22, 1883.

ANSWER.—In answer to the above question, I will refer Mr. F. to page 659 of the BEE JOURNAL for 1882.

The case represented is for one-pound sections, and the same plan is equally well adapted for sections of other sizes.

#### Transferring Bees from a Box.

Will it be advisable to take a swarm of bees out of a store box and put them in a hive at this time? The bees swarmed on June 9, and have built the box half full. Please let me know if I can do it and not disturb the bees.

GEO. D. RANDENBUSH.

ANSWER.—It is better for the inexperienced to do their transferring in the latter part of May or fore part of June. The harder and stiffer the combs, the better. Still, if properly done, there is no chance of failure in transferring your bees at this time of the year, and new swarms at that, upon the plan given in last week's BEE JOURNAL, page 367.

#### Moving Bees.

Living in a village, my bees annoy the grocers, and also people in their houses, when flowers fail. Is there any remedy but to move them out of town, if so what? If moved, how far must I take them, not to suffer loss of bees, by removal? Will Mr. Heddon please answer in the Weekly BEE JOURNAL. J. E. FULLER.

Homer, N. Y., July 23, 1883.

ANSWER.—I am not one of those who believe so little in the rights of apiarists and so much in the rights of others as some bee-keepers do; but leaving the opposing rights out of the question, I believe it would well pay you to move your bees out of town, and that is the only practical remedy. I can move my whole apiary at any time of year from one rod to ten miles or over, without any loss resulting. Twice I have moved my whole stock about ten rods, once three-quarters of a mile, and all went well. I will, in the near future, in an article in this paper, tell you how I proceed.

#### Driving Bees.

I have watched the bees for my father 27 years ago, sometimes as late as August, for swarms. I have since learned that the heat of the season has more to do with their clustering on the outside of the hive than a propensity of swarming, especially so late in the season. About 15 years ago I bought my first colony of bees. I was a reader of the AMERICAN BEE JOURNAL for a few years, when printed in Washington, D. C. When I learned that it had become a weekly journal, I subscribed for it again, and I expect to take it as long as I have one colony of bees. With one or two exceptions, I never wrote a line for it or any other bee paper. As a goodly number of our professed bee-keepers give us their best ideas and new discoveries, I thought I would write a few lines and let the bee fraternity discuss what I believe to be entirely new, at least I never saw a line on the subject. I would like to apply to a practical use a discovery I made. It is this: I succeeded in making a number of swarms to come out of the parent colonies like a natural swarm does. I have done it as late in the day as 4 o'clock. By applying my process they swarm and cluster as any natural swarm does. I would like Mr. Heddon to consider this, and give the readers of the BEE JOURNAL the advantages that could be derived from it. I now have 78 colonies—spring count 25. Most of them in the surplus boxes. I use side and top surplus arrangement. I am not experienced in extracting, but will try it this week. I use a frame 11x12, which, I think, is 1 or 2 inches too deep. I believe a frame 9 inches deep by 12 long about the right size. I wintered on the summer stands last winter, and lost 60 colonies. I blame myself (as I believe all who lose heavily ought to) for losing so many, because I did not give them the proper winter protection. Allow me, in this connection, to ask whether there is among your many readers a person who has ever driven a swarm of bees as mentioned in this item.

J. R. ROEBUCK.

Burton City, Ohio, July 14, 1883.

ANSWER.—Any cheap and practical method by which a colony can be made to cast a swarm at will, would be of great value to the fraternity.

In answer to your last question, I will say that several bee-keepers have reported causing their bees to swarm by inserting a queen-cell in the hive. This result, however, is only a possible one, and cannot be relied upon with any degree of certainty, and, undoubtedly, is entirely impracticable. As far as the size of your frame is concerned, I agree with you that it is too deep, and will say that could I now inaugurate an universal frame, I would, for one or two quite important reasons, make it not over seven inches deep, which is two inches shallower,

and I would have it a little longer than the Langstroth frame. But experience in thousands of cases, and in hundreds of apiaries, has demonstrated beyond all doubt, that there is less importance regarding the size of frame as adapted to breeding, wintering and surplus honey-storing than that we have one and the same size frame, in general use. I am always ready and anxious to put to the test all new methods which bid fair to prove valuable adjuncts to the science of apiculture. I would like to know of your method.

### SELECTIONS FROM OUR LETTER BOX

#### Keeping the Colonies Strong.

The basswood has never yielded more honey in one season than this. My hives are 12x22 inches, and 13 inches deep, inside measure. About 12 frames 11 inches square fill a hive. On top of this I put a hive made for wide frames, holding 8 one-pound sections. I keep my colonies very strong, so that they will fill sections rapidly. Perhaps you would like to know how I keep them so strong. Some time before the basswood bloomed, the bees were gaining in stores from white clover; I examined some of the strongest, and found about 6 or 7 queen cells started. I destroyed all I could find in each hive, thinking this would prevent them from swarming for a while; but they built other cells immediately. Then the basswood commenced to bloom and they wanted to swarm; I let about a gallon of bees go out with the queen. I then shut the hive up until the swarming fever was over; I kept destroying all the queen cells in the old hive, except one, until the brood was too old to produce queens. The amount of bees which went with the queen was hardly missed from the old colony. The swarm which was hived I strengthen with hatching brood, when the rush of honey-gathering is over. A part of my hives have just one story, or at least without the sections to extract from, and, after doing so, I keep some of the whitest comb which has no brood in it, take out full sections and fill empty ones with this comb, and put in the place of the full ones.

WICKLIFFE FISHER.

Hamler, O., July 26, 1883.

#### Never Saw the Like Before.

My 27 colonies in the spring have given 2,700 lbs. of extracted and some comb honey, besides increasing to 65 colonies and some nuclei. Basswood is now in full bloom. I never saw the like in the 18 years I have been in Minnesota.

H. H. ROSEBROCK.

Owatonna, Minn., July 25, 1883.

**Queen Laying in the Sections.**

My spring yield of honey is over. I took out the last on the latter part of June. The amount from my 60 colonies is 3,000 pounds of extracted honey. I will probably get half as much more in the fall. Is there any way to restrain the bees from making brood in the upper story? My bees seem to have a particular fancy for that this season. Please tell me about the Bokhara clover, whether or not it is very desirable as a honey plant.

M. M. LINDSAY.

Fulton, Tenn., July 24, 1882.

[Some use what is called queen excluders—sheets of zinc with holes large enough to admit the workers, but through which the queen cannot pass. Bokhara is the imported sweet clover, and is an excellent honey-producer.—ED.]

**Best Honey Harvest for Years.**

We have had the best honey harvest here for years. The bees are just booming. It is in fact the best we ever had.

H. C. WHITE.

Madison, Ind., July 17, 1883.

**Troubles of a Beginner.**

The flood of last winter left me with but 3 colonies of bees. They each swarmed about the middle of June; in 7 days I listened for the piping of the queen, and heard it in one of the hives, but not in the others. A swarm followed, and the piping went on until 4 swarms came off. In one hive, that night, the piping was as loud as ever, but no swarm followed, nor have I heard any piping since. The night after, the fourth swarm came out, but there was no piping or swarming in the others. They put surplus in the upper story (box hives). My difficulty was this, in hiving a swarm that came off on June 16, the cluster was low, on a grape vine. I set a Langstroth hive on the ground and shook the bees down, but they clustered on the hive in front, and refused to enter. I brushed them down, and repeatedly changed the hive, took out some of the frames, but to no purpose; there they staid all night, and got the benefit of a drenching shower. On the morning of the 17th, I sent for a neighbor of greater experience, not liking to lose the bees (a very large swarm). He put in the frames, also put on the boxes, and went to work with smoker and stick, working faithfully in the rain for an hour, and literally drove them in. I carried them to the stand and had no further trouble. But, on the 9th inst., I took off the boxes and found a very few boxes of nice clover honey, the rest were filled with brood in all stages, young bees, sealed and unsealed brood, and cells with eggs just deposited. Cells that from their color seemed to have been used before, and from which I am convinced young bees had come very lately. After taking the combs out, I watched them for an hour or two, and was rewarded by seeing bee after bee biting

off the cap and emerging from their cells. I do not know whether I could have saved any of this brood, by placing the combs under a box hive, or whether I was all wrong in putting on the boxes at the start, and as the bees must have entered the boxes when hived (only 21 days intervening). Have I probably lost the queen, and how am I to know? We are having a famous honey season; white clover covers the land, and bees work prodigiously.

THOS. MARTIN.

Coal Valley, Ill., July 10, 1883.

[Had you given the swarm sheets of foundation in the brood-chamber, they would not have gone up to the surplus arrangement to build comb, and use it for brood-rearing. If no comb foundation was given the swarm when hived, or old combs, the surplus arrangement should not have been put on. If the queen was "lost," where did the brood come from?—ED.]

**White Honey Harvest Short.**

Basswood, which is very abundant in our vicinity, has just gone out of bloom. From some cause, there was not one blossom to many thousands last year, when the weather was favorable but a part of the time, so the yield has been very light from it, this year. White clover has never bloomed so abundantly with us, as it has this season; but the weather has been too cold and wet to give us much from that source, consequently our white honey harvest will be very short. White clover is still in bloom, and we may get a small amount from it yet. We have extracted 2,000 pounds, and have taken 400 pounds of comb honey, and still have in the hives enough to make the former 2,500, and the latter 500 or 600 pounds, from 100 colonies, in splendid condition. Last season we got nearly twice the amount from 50 colonies. We would like to inquire of those having had experience with Alsike clover, if cattle pastured upon it are as liable to become bloated as upon red clover. If the Alsike is free from this objection, it can be largely introduced among the farmers, and will be a great benefit to bee-keepers.

A. J. HATFIELD & SON.

New Carlisle, Ind., July 24, 1883.

**How I Build Up My Colonies.**

My bees are just booming, and have been most of the time since white clover came in, some 4 or 5 weeks ago, and it looks now as if it would last well for 2 or 3 weeks yet. From our present prospects, we will get as good a yield as we did last season. I began the spring with 11 colonies, all in fair condition except one which proved to be queenless; but I kept it going by giving it brood from other colonies, until a new queen was reared, so now it is one of my best. I have bees in 23 hives, but do not count all true colonies until the queen is laying. I make my increase by dividing on the nuclei plan, which I like best, for it leaves the main colonies strong for

making new comb, rearing brood, and storing surplus honey. I usually get nice comb built (when I do not have foundation), by putting in 2 or 3 empty frames at a time, near the center of each colony, one frame in a place. By this plan I build up my young colonies gradually, without drawing much on the old ones. Here I will state how I prepare brood sections for the Langstroth hive, so that they hold either natural comb or comb foundation, without sagging or breaking out when handling the combs, either in the extractor or otherwise. I take good broom wire and stretch it tightly across the middle of the section. To do this, I make a hole in the end pieces, put the wire through, fasten one end, and draw it tightly and fasten it, before cutting the wire. Fasten the ends by bending over and twisting around the wire, and I find the bees nearly always build the comb with the wire in the center, with perfect cells on each side. I filled several sections prepared this way last season, with foundation, and it all proved a success without trouble. After fastening at the top, lightly press the wire into the sheet of foundation, and the bees will draw it out alike on both sides. In sections fixed in this way, you will always find that the comb is strong and will stay to its place. I have had them in use several years. From my 11 colonies about two weeks ago, I extracted 200 lbs. of fine white clover honey, and I can take about the same now, and about 100 lbs. of fine comb honey in two-pound sections.

J. W. SANDERS.

Le Grand, Iowa, July 20, 1883.

**Abundance of Rain.**

Rain still reigns in this neighborhood. We have had rain nearly every day this month, until about a week ago, when it ended with the heaviest storm of the season, overflowing the banks of the river, and caused great destruction and loss of life and property in the parts of this city lying low. One bee-keeper in this city had to carry his bees upon the top of his house; another saved only one colony out of his whole yard, being more fortunate than some others who lost every colony. I am happy to say mine are doing very well, and I am satisfied they will pay me a very good interest on my investment. Basswood has started to bloom, and clover is still in blossom; so if we have two or three weeks of dry weather now, we will be all right until fall flowers appear.

W. H. WESTON.

London, Ont., July 20, 1883.

**Giant Ladies' Slipper as a Honey Plant.**

I see that the German word, "Riesen Balsamine" was translated wrong on page 355. It should have been the *Giant Ladies' Slipper*.

L. KNORR, M. D.

Savannah, Ga., July 22, 1883.

[If any of our readers know of this plant yielding honey in America, we should be pleased to hear from them on the subject.—ED.]

**Excessive Swarming.**

It has been out of the question to keep bees from swarming. The weather has been too wet and cold, all through the white clover season; with only enough of sunshine to give the bees a chance to swarm; swarm they would, and swarm they did. Pasturage has been good all the spring and summer, so far, but the weather has been so bad that they could not gather the crop, which has been most abundant, if it could have been saved. Basswood opened the 15th, and would have given us a large surplus, had the weather been favorable; bees are very strong, and would do well if they could.

A. W. OSBURN.

Water Valley, N. Y., July 23, 1883.

**Sweet Clover, etc.**

I enclose samples of honey plants. Please give me the name of plant No. 1, and also state whether it is honey-producing. My bees have not found it yet, as it grows by the kitchen door, and they never come about the house. Is No. 2 the famous Mollie O'Large's honey plant, that we read so much about? Is smartweed and heart's-ease the same plant? Please answer in the BEE JOURNAL.

MRS. J. N. HEATER.

Columbus, Neb., July 2, 1883.

[Number 1 is sweet clover (*Melilotus officinalis*), a well-known honey plant, and for its large and long continued nectar-product, very justly esteemed by apiarists. Another species much like the present one, has white flowers, while these are yellow. Both are natives of Europe, but are now widely disseminated throughout our country, and spontaneously (as would appear) spring up about the yards, roadsides and waste places anywhere. They are biennial plants, flowering or not the first year, according to the earliness, vigor, etc., of the seedling, and the length of the season, but springing up from the root the second year, and making rapid and large growth with an abundance of flowers, each of which is richly filled with honey of excellent quality. The plants are very hardy, and in most places propagate themselves sufficiently to keep up the supply. The first part of the generic name, *Mel*, means honey; so conspicuous, this substance seemed to be to Tournefort, the French botanist, as he examined and named the plant.

Now comes another side to the story. Only last week an appeal came from Livingston County, Ill., for information as to how to exterminate this sweet clover from the roadsides, the officer in charge finding it a veritable nuisance as a weed. Neither is this the first request of the kind

that has come to your correspondent from the region of country southwest from Chicago, within a radius of a hundred miles. Cattle do not commonly eat the plant, and no enemies among the insect tribe appear to follow it. The long, hard stems, with open foliage, make a poor substitute for many better plants which are crowded out in the special localities where this clover prominently thrives. This again opens up a very interesting, and in many ways, important question, much too intricate and involved, however, to be entered upon here, except as a simple statement—the question of the peculiar growth of certain plants in certain regions.

We used to have an idea that plants succeeded best in their native country, or at any rate in places most nearly resembling in soil, climate, etc., the original home of the species, but this is by no means the fact. Our worst weeds are such from their vigor and abundant reproductive powers, but nearly all these worst ones are importations from abroad, largely from across the ocean. On the other hand, some American plants, not specially obnoxious at home, are the pests of the fields, gardens, etc., of other countries. Our evening primrose is well-nigh an occupant of the whole land area of the temperate zones, sometimes scattered and scarcely noticeable, sometimes pestiferous as a weed. The same fact may be noted in regard to the plant growth in different parts of our country. In central Illinois Canada thistles do not thrive, no seed at all is produced. Those pests of the eastern pastures and meadows, "hard-hack" and "white weed," are rarely seen in the West, and if introduced, more rarely maintain their unenviable reputation. Any one may multiply these examples, but it is not so easy to answer why such peculiarities exist. Without attempting it here in any way, attention is called to the importance of proper knowledge in this respect, when introducing or harboring plants strange to the vicinity. A pest may be kept out or readily exterminated perhaps at first, which, after a time, becomes a continual nuisance in spite of efforts at eradication. The bee men are blamed in the locality referred to for the existence there of sweet clover, whether justly or not is another matter.

Number 2 belongs to the mustard family, and seems to be a *Dentaria*.

The specimen is not sufficiently developed to permit accurate determination.

The plants usually called smartweed and heart's-ease are not the same species, though similar in appearance, and belong to the same botanical genus (*Polygonum*). The former—there are several of them—have a sharp or peppery taste, the latter is quite free from this property, and contains a gland mucilage not found in the other. When, however, bee-keepers speak of the product from "smartweed" the non-acrid species of *Polygonum* are meant, for these are by far the best honey plants.—T. J. BURRILL, Champaign, Ill.

**Width of Sections.**

In reply to G. H. Denman (see page 363), I would say that my sections were a sixteenth less than two inches wide, and in racks holding 21 sections.

L. C. WHITING.

East Saginaw, Mich., July 20, 1883.

**Gibson Co., (Tenn.) Association.**

Too much rain this season for a good flow of honey. The crop is almost a failure, in this section. I will get some more yet, but in all that I get from the spring harvest will be about 1,500 pounds of comb honey. My bees are bringing in pollen rapidly now, and rearing bees for the fall crop, and with favorable weather we may expect a good fall crop of honey. Bee-keepers are getting somewhat more interested in bees, in this country, than before; and have organized the "Gibson County Bee-Keepers' Association," a report of which you will get next week. The BEE JOURNAL comes regularly, and is a welcome visitor to Honey Hill apiary.

J. W. HOWELL.

Kenton, Tenn., July 17, 1883.

**Poor Honey Prospect in New York.**

We had a hard fight to get our bees through the cold spring, and many colonies fell by the way. Since then an almost continual rain blighted our good prospects for a large yield of honey. We had a good show of white clover, but heavy rains prevented the bees from gathering much honey from it. Basswood has helped bees to fill the brood-chambers some, but gave only a little surplus honey. The result is, there is but very little surplus honey in this section, up to this date. We may get some fall honey.

R. BACON.

Verona, N. Y., July 24, 1883.

**Basswood Come and Gone.**

Basswood began to bloom 10 days ago, and it is now gone. Sumac is in its prime, and will last for 3 weeks yet. I have had about 50 pounds of surplus so far, on an average, per colony, and more is nearly ready to take away.

H. L. JEFFREY.

Washington Depot, Ct., July 23, 1883.

## Special Notices.

**Examine the Date** following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

### How to Create a Market for Honey.

We have now published another edition of the pamphlet on "Honey as Food and Medicine," with more new Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price *still lower*, to encourage bee-keepers to scatter them far and wide. Single copy 5 cents, postpaid; per dozen, 40 cents; per hundred, \$2.50. 500 will be sent postpaid for \$10.00, or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit. Try it, and you will be surprised.

**Bee Pasturage a Necessity.**—We have just issued a new pamphlet giving our views on this important subject, with suggestions what to plant, and when and how. It is illustrated with 26 engravings, and will be sent postpaid to any address for 10 cents.

Do not send coins in a letter. It is dangerous and increases the postage unnecessarily. Always send postage stamps, for fractions of a dollar, and, if you can get them—one-cent stamps; if not, any denomination of postage stamps will do.

### Our Premiums for Clubs.

Any one sending us a club of two subscribers for 1 year, for the Weekly, with \$4, will be entitled to a copy of Bees and Honey, in cloth, postpaid.

For three subscribers, with \$6, we will send Cook's Manual, in paper, Emerson's Binder for the Weekly, or Apiary Register for 50 colonies.

For four subscribers, with \$8, we will send Cook's Manual in cloth, or Apiary Register for 100 colonies.

For five subscribers, with \$10, we will send the Apiary Register for 200 colonies, Quinby's New Bee-Keeping, Root's A B C of Bee Culture, or an extra copy of the Weekly BEE JOURNAL for one year.

To get any of the above premiums for the Monthly BEE JOURNAL send double the number of subscribers, and the same amount of money.

### The Apiary Register.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it.

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The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

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May we ask you, dear reader, to speak a good word for the BEE JOURNAL to neighbors who keep bees, and send on at least one new subscription with your own? Our premium, "Bees and Honey," in cloth, for one new subscriber to the Weekly, or two for the Monthly, besides your own subscription to either edition, will pay you for your trouble, besides having the satisfaction of knowing that you have aided the BEE JOURNAL to a new subscriber, and progressive apiculture to another devotee.

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Large Smokers need wide shields. Bingham's have them, and springs that do not rust and break, and bellows that sparks and smoke do not enter. The Conqueror has all improvements made to date, and a 3x7 inch stove, and 5x7 inch bellows. Sent post-paid for \$1.75. Address,

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### The Very Best.

The Bingham "Conqueror" smoker is the very best thing I have tried in that line. M. M. LINDSAY.  
Fulton, Tenn., July 24, 1883.

**All Excelling.**—Messrs. Bingham & Hetherington, Dear Sirs:—I am now selling your Smokers almost exclusively. You are excelling yourselves in smokers all the time.

Respectfully, J. G. TAYLOR.  
Austin, Texas, May 10, 1883.

### Cyprians Conquered.

All summer long it has been "which and tother" with me and the Cyprian colony of bees I have—but at last I am "boss." Bingham's "Conqueror Smoker" did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham.

G. M. DOOLITTLE.  
Borodino, N. Y., Aug. 15, 1882.

During the following three months, Bingham Smokers will be sent post-paid, per mail, on receipt of the following prices:

The "Doctor".....(wide shield)—3½ in. fire tube, \$2.00  
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With thanks for letters of encouragement, and the absence of complaining ones, we tender to our thirty-five thousand patrons our best wishes.

Very Respectfully Yours,

BINGHAM & HETHERINGTON.  
Abronja, Mich., June 1, 1883.

### The New York and Lake City Mining Company.

A prominent engineer, who is well acquainted with Mines in all parts of Colorado, was recently invited to examine the property of this Company. He gave it as his opinion, and he is perfectly disinterested, that the property is the richest he had ever seen, and is worth \$5,000,000.—Adv.

### Advertisers' Opinion.

The queen business is *rushing*, and we think the BEE JOURNAL deserves much credit as an advertising medium.

E. A. THOMAS & CO.  
Coleraine, Mass., July 18, 1883.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

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Six Queens for \$5.00.

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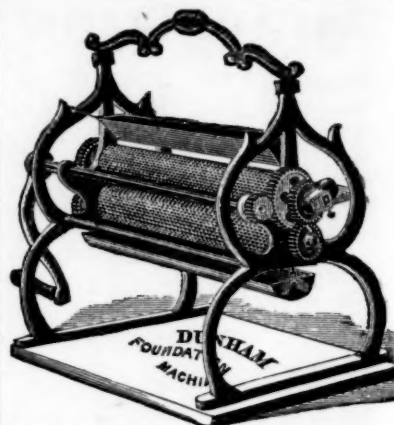
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